Discussion of References.

The applicant has discovered a new geared core winder with locking mechanism for use with core rolls, particularly for fabric materials, rugs, paper and other such products. This mechanism combines a locking mechanism with a geared core winder. The locking mechanism contains a generally donut-shaped locking piece with a central opening, wherein contained within that central opening is a rotation limitation system, which permits only one way directional rotation of a shaft of the geared core winder when placed within that the central opening of the locking mechanism. The applicant respectfully asserts that this invention is not disclosed by Frey, et. al.

Frey, et. al. disclose a wire winding device for attachment to a power take-off shaft (14) of a tractor. The power take off shaft (14) circumferentially takes up the wire. The device of Frey, et. al. includes a spline shaft (14), as best shown in Figure 2 which contains a series of splines or ribs which extend away from the surface of the shaft (14). Placed over this spline shaft (14) is a sleeve (16), which contains an axial bore (18) "formed with spline teeth (18') meshing with those of the power take-off shaft." (Col. 1, line 73 through col. 2, line 2.) When the shaft is inserted into the sleeve, the splines of the spline shaft (14) fit into the spline teeth (18') contained in the sleeve (16), as shown in

Figure 3. When the sleeve (16) with its spline teeth (18′) is fit over the spline shaft (14), no circumferential rotation of the sleeve (16) is permitted in relation to the shaft (14). In fact, the purpose of the splines of the spline shaft (14) being placed within the spline teeth (18′) of the end axial bore (18) is to prevent any rotation either clockwise or counterclockwise of the sleeve (16) without similar rotation from the shaft (14). There can be no rotation of the sleeve (16) without a complimentary rotation by the shaft (14).

This "conjoint" rotation of these complimentary components is explained in Frey, et. al. at col. 2, lines 8 - 11, where it states that the sleeve (16) is firmly secured to the power take off shaft (14) "for rotation conjointly therewith." A set screw is utilized to limit movement by the sleeve along the axis of the shaft. In contrast, axial rotation of the spine shaft (14) in relation to the sleeve (16) is only prevented by the interaction of the spline teeth (18′) with the splines of the spline shaft (14).

In contrast, the locking mechanism of the invention is not designed to prevent all axial rotation. In fact, it is designed to encourage "one way directional rotation of a shaft placed within the central opening." (Claim 1, page 20, lines 12 - 13.) In the embodiment as shown on Figure 1, the shaft (12) can rotate either in a clockwise or counterclockwise direction in relation to the locking mechanism (10), but not in both directions. Note that even when the locking pins (30) are secured within the openings in the locking mechanism (10) and the first donut-shaped piece (118), one way axial rotation of the shaft (12) in relation to the geared core winder (10) and the first donut-shaped piece (118) is permitted. One way rotation of the geared core winder and the locking mechanism is a key component of the invention, as claimed. Thus, the locking mechanism is not designed to prevent all axial rotation, but merely prevent rotation in one direction. This has practical consequences for the invention. The geared core winder rotates in one direction to take up the material that is being placed on the geared core winder. Only rotation in the opposite axial direction is prevented.

In contrast, the device of Frey, et. al. prevents all axial rotation of the sleeve (16) in relation to the shaft (14). This is a key distinction between the Frey, et. al. device and the device, as claimed in the claims of the application, where it states that the invention requires "a rotation limitation system secured within the central opening which permits one way directional rotation of a shaft placed within the central opening...".

The applicant respectfully asserts that this important feature is not taught by Frey, et. al. In fact, it would be contraindicated by Frey, et. al. as the goal of the device of Frey, et. al. is for the sleeve (16) to axially rotate only when the shaft rotates.

New Claims

The applicant has added new Claims 19 and 20. Claim 19 claims the combination of a generic geared core winder with the locking mechanism of Claim 1. The USPTO has already stated that Claim 9, which claims a specific geared core winder used with the locking mechanism, is allowable. The applicants assert that the use of a "generic" locking geared core winder with the locking mechanism should also be allowable.

Conclusion

The applicant believes that he as responded to all objections and rejections of the United States Patent and Trademark Office and has put the claims of the application in condition for allowance. If there are questions concerning this Amendment, please contact applicant's counsel.

Respectfully Submitted,

Scott R. Cox
Reg. No. 31,945
LYNCH, COX, GILMAN & MAHAN, P.S.C.
400 West Market, Suite 2200
Louisville, Kentucky 40202
(502) 589-4215

CERTIFICATE OF SERVICE

I hereby certify that this correspondence is being deposited with the United States Postal Service in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Dated: March 1, 2005 Holly Hart

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